1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING **Product identifiers** 1.1 Chlozolinate solution Product name 1.2 Relevant identified uses of the substance or mixture and uses advised against Identified uses Laboratory chemicals, Manufacture of substances 2. HAZARDS IDENTIFICATION 2.1 Classification of the substance or mixture Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP] Flammable liquids (Category 2) Skin irritation (Category 2) Specific target organ toxicity - single exposure (Category 3) Aspiration hazard (Category 1) Acute aquatic toxicity (Category 1) Chronic aquatic toxicity (Category 1) Classification according to EU Directives 67/548/EEC or 1999/45/EC Highly flammable. Harmful: may cause lung damage if swallowed. Irritating to skin. Vapours may cause drowsiness and dizziness. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. 2.2 Label elements Labelling according Regulation (EC) No 1272/2008 [CLP] Pictogram Signal word Danger Hazard statement(s) H225 Highly flammable liquid and vapour. H304 May be fatal if swallowed and enters airways. Causes skin irritation. H315 H336 May cause drowsiness or dizziness. Very toxic to aquatic life with long lasting effects. H410 Precautionary statement(s) P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. P261 P273 Avoid release to the environment. P301 + P310IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician. P331 Do NOT induce vomiting. P501 Dispose of contents/ container to an approved waste disposal plant. Supplemental Hazard none Statements According to European Directive 67/548/EEC as amended. Hazard symbol(s) R-phrase(s) R11 Highly flammable. R38 Irritating to skin. Harmful: may cause lung damage if swallowed. R65 Vapours may cause drowsiness and dizziness. R67 Very toxic to aquatic organisms, may cause long-term adverse effects in R50/53the aquatic environment. S-phrase(s) Keep container in a well-ventilated place. S9 Keep away from sources of ignition - No smoking. S16 S25 Avoid contact with eyes. S33 Take precautionary measures against static discharges. S51 Use only in well-ventilated areas. This material and its container must be disposed of as hazardous waste. S60 Avoid release to the environment. Refer to special instructions/ Safety S61 data sheets. S62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label. 2.3 Other hazards - none 3. **COMPOSITION/INFORMATION ON INGREDIENTS** 3.2 **Mixtures** Synonyms Ethyl 3-(3,5-dichlorophenyl)-5- methyl-2,4-dioxo-5-oxazolidinecarboxyate C13H11Cl2NO5C13H11Cl2NO5 Formula Component Classification Concentration Cyclohexane Flam. Liq. 2; Asp. Tox. 1; Skin CAS-No. 110-82-7 > 99,9 % Irrit. 2; STOT SE 3; Aquatic EC-No. 203-806-2 Acute 1; Aquatic Chronic 1; H225, H315, H304, H336, H410 F, Xn, N, R11 - R38 - R65 -R67 - R50/53 **Chlozolinate** CAS-No. 84332-86-5 Carc. 2; Aquatic Chronic 2; < 0,1 % EC-No. 282-714-4 H351, H411 Xn, N, Carc.Cat.3, R40 -R51/53For the full text of the H-Statements and R-Phrases mentioned in this Section, see Section 16 4. FIRST AID MEASURES 4.1 **Description of first aid measures** General advice Consult a physician. Show this safety data sheet to the doctor in attendance. If inhale d If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. In case of skin contact Wash off with soap and plenty of water. Consult a physician. In case of eye contact Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. If swallowed Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician. 4.2 Most important symptoms and effects, both acute and delayed Central nervous system depression, Drowsiness, Irritability, Dizziness, Gastrointestinal disturbance, Lung irritation, chest pain, pulmonary edema, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. 4.3 Indication of immediate medical attention and special treatment needed no data available **5.** FIRE-FIGHTING MEASURES **5.1** Extinguishing media Suitable extinguishing media For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water. **5.2** Special hazards arising from the substance or mixture Carbon oxides 5.3 **Precautions for fire-fighters** Wear self contained breathing apparatus for fire fighting if necessary. **5.4 Further information** Use water spray to cool unopened containers. **6.** ACCIDENTAL RELEASE MEASURES Personal precautions, protective equipment and emergency procedures 6.1 Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. **6.2 Environmental precautions** Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided. 6.3 Methods and materials for containment and cleaning up Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). 6.4 Reference to other sections For disposal see section 13. 7. HANDLING AND STORAGE 7.1 **Precautions for safe handling** Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. 7.2 Conditions for safe storage, including any incompatibilities Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Recommended storage temperature: 2 - 8 °C 7.3 Specific end uses no data available 8. EXPOSURE CONTROLS/PERSONAL PROTECTION 8.1 **Control parameters Components with workplace control parameters** 8.2 **Exposure controls Appropriate engineering controls** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. Personal protective equipment Eye/face protection Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). **Skin protection** Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. **Body Protection** Complete suit protecting against chemicals, Flame retardant antistatic protective clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Respiratory protection Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). 9. PHYSICAL AND CHEMICAL PROPERTIES 9.1 Information on basic physical and chemical properties Form: liquid Appearance a) Colour: colourless Odour no data available b) **Odour Threshold** no data available c) pН no data available d) Melting/freezing point no data available 80.7 °C at 1.013 hPa Initial boiling point and f) boiling range -18 °C - closed cup Flash point no data available Evaporation rate h) Flammability (solid, gas) no data available i) Upper/lower Upper explosion limit: 9 %(V) j) flammability or Lower explosion limit: 1 %(V)explosive limits Vapour pressure no data available k) Vapour density no data available 1) m) Relative density 0,780 g/cm3 at 20 °C Water solubility no data available Partition coefficient: nno data available octanol/water Autoignition no data available temperature Decomposition no data available temperature no data available Viscosity r) Explosive properties no data available S) Oxidizing properties no data available 9.2 Other safety information no data available **10.** STABILITY AND REACTIVITY 10.1 Reactivity no data available 10.2 **Chemical stability** no data available 10.3 Possibility of hazardous reactions no data available 10.4 Conditions to avoid Heat, flames and sparks. Extremes of temperature and direct sunlight. 10.5 **Incompatible materials** Strong oxidizing agents 10.6 Hazardous decomposition products Other decomposition products - no data available 11. TOXICOLOGICAL INFORMATION 11.1 **Information on toxicological effects Acute toxicity** no data available Skin corrosion/irritation no data available Serious eye damage/eye irritation no data available Respiratory or skin sensitization no data available Germ cell mutagenicity no data available Carcinogenicity IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. Reproductive toxicity no data available Specific target organ toxicity - single exposure no data available **Specific target organ toxicity - repeated exposure** no data available Aspiration hazard no data available Potential health effects Harmful if inhaled. May cause respiratory tract irritation. Vapours may Inhalation cause drowsiness and dizziness. May be harmful if swallowed. Aspiration hazard if swallowed - can enter Ingestion lungs and cause damage. May be harmful if absorbed through skin. May cause skin irritation. Skin Eyes Causes eye irritation. Signs and Symptoms of Exposure Central nervous system depression, Drowsiness, Irritability, Dizziness, Gastrointestinal disturbance, Lung irritation, chest pain, pulmonary edema, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. **Additional Information** RTECS: Not available **12. ECOLOGICAL INFORMATION** 12.1 **Toxicity** no data available 12.2 Persistence and degradability no data available 12.3 **Bioaccumulative potential** no data available 12.4 Mobility in soil no data available 12.5 Results of PBT and vPvB assessment no data available **12.6** Other adverse effects Very toxic to aquatic life with long lasting effects. **13. DISPOSAL CONSIDERATIONS** 13.1 Waste treatment methods **Product** Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Contaminated packaging Dispose of as unused product. 14. TRANSPORT INFORMATION 14.1 **UN-Number** IMDG: 1145 ADR/RID: 1145 IATA: 1145 14.2 **UN proper shipping name** ADR/RID: CYCLOHEXANE IMDG: CYCLOHEXANE IATA: Cyclohexane 14.3 Transport hazard class(es) ADR/RID: 3 IMDG: 3 IATA: 3 14.4 Packaging group IATA: II ADR/RID: II IMDG: II 14.5 **Environmental hazards** IATA: no ADR/RID: yes IMDG Marine pollutant: no 14.6 **Special precautions for users** no data available **15. REGULATORY INFORMATION** This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006. 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture no data available 15.2 **Chemical Safety Assessment** no data available **16. OTHER INFORMATION** Text of H-code(s) and R-phrase(s) mentioned in Section 3 Aquatic Acute Acute aquatic toxicity Aquatic Chronic Chronic aquatic toxicity Aspiration hazard Asp. Tox. Carcinogenicity Carc. Flammable liquids Flam. Liq. Highly flammable liquid and vapour. H225 H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. May cause drowsiness or dizziness. H336 H351 Suspected of causing cancer. H410 Very toxic to aquatic life with long lasting effects. H411 Toxic to aquatic life with long lasting effects. Skin Irrit. Skin irritation STOT SE Specific target organ toxicity - single exposure F Highly flammable Dangerous for the environment N Xn Harmful R11 Highly flammable. R38 Irritating to skin. Limited evidence of a carcinogenic effect. R40 R50/53Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic R51/53environment. Harmful: may cause lung damage if swallowed. R65 Vapours may cause drowsiness and dizziness. R67 **Further information** For R&D use only. Not for drug, household or other uses. WARRANTY: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. 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